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## F-117s deliver at joint experiment in Nevada

*by Leigh Anne Bierstine, Air Force Flight Test Center Public Affairs*

*EDWARDS AFB, Calif.* — F-117 Combined Test Force experts teamed with their operational counterparts to unleash a new time-critical targeting capability that's expanding what the stealth fighter brings to a combat environment.

Test force members from Air Force Plant 42 in Palmdale, Calif., wowed participants and senior leaders at the Joint Expeditionary Force Experiment 2002 held at Nellis Air Force Base, Nev., July 24 through Aug. 9, with the stealth fighter's IRRCA demonstration project.

Officially known as the Integrated Real-time Information Into the Cockpit and Real-time Information Out of the Cockpit for Combat Aircraft flight-test project, it allows the F-117 and its pilots to receive and transmit mission and target data in real-time from the air.

The Joint Expeditionary Force Experiment 2002, better known as JEFX02, is the fourth in a series of large-scale experiments designed to help Air Force officials prepare for 21st century Expeditionary Aerospace Force operations challenges. Combining live, virtual and simulated forces, officials said the experiment modeled a future command and control system, and explored the advanced technologies needed to improve the Air Force's ability to take out time-sensitive targets.

That's where the stealth fighter's IRRCA demonstration project came in. F-117 test pilots from the CTF at Palmdale along with operational testers from Detachment 1 of Air Combat Command's 53rd Test and Evaluation Group at Holloman Air Force Base, N.M., flew missions in both live-flight portions of the experiment, including the new Global Strike Task Force portion designed to pave the way for land and sea forces in future conflicts.

From inside the Combined Air Operations Center, or CAOC, at Nellis, Tech. Sgt. Dawn Cotton, an avionics craftsman with the F-117 CTF, sent text messages to stealth pilots in the air allowing them to attack a new target in a different location or capture battle damage assessment imagery on time-sensitive targets. In turn, pilots sent imagery and mission reports in real-time back to Cotton on the ground.

According to Cotton, once the imagery began coming in, the crowd around her seat inside the CAOC quickly started growing. At one point during the exercise Cotton gave up her seat so Secretary of the Air Force Dr. James Roche and Air Force Chief of Staff Gen. John Jumper could have a closer look. Cotton said both were impressed with the picture quality and timeliness of the data coming into the ground station.

"At first others participating in the experiment were a little wishy-washy about what the IRRCA system could do," Cotton said. "But as soon as our data came up on the screen, everyone from intel to the time critical target experts in the room became very excited with what this capability can do for the Air Force."

Until IRRCA testing, the potential time-critical combat capabilities of the F-117 had not been explored and there was no way to re-task the fighter from the ground to take out time-sensitive targets. For Mike Seelos, F-117 test force IRRCA project manager, the experiment proved to be the perfect setting to demonstrate what the new capability brings to the fight.

"The F-117's mission is to take out heavily defended high-value targets, so it's important that the stealth fighter and its IRRCA capability were a part of the experiment," Seelos said. "We are the ones who are helping to kick down the door and this new capability played a key role in making that happen during JEFX02."

This year, the experiment was part of Millennium Challenge, a congressionally mandated joint experiment designed to simulate a realistic 2007 battlefield to assess the interoperability of new methods to plan, organize and fight. The IRRCA project is an initiative of the Air Force Research Laboratory Sensors Directorate at Wright-Patterson Air Force Base, which has provided funding and guidance for the project since it began in 1997. The F-117 CTF in Palmdale, which includes the 410th Flight Test Squadron and lead F-117 contractor Lockheed Martin, has been working with the operational test community to evaluate the IRRCA demonstration project.

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With the experiment's success behind them, test team members plan to further develop the IRRCA project and explore its compatibility with the Air Force's Link-16 satellite capabilities, said Seelos. @